## IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures Date July 24, 2003

Attention All Employees Ref No. 521.1

From Gary Novey

Office Bridges and Structures

Subject MM No. 78 Charpy Requirements for Steel End Diaphragms

After discussions with the Materials Office, it was found that the standard specifications are not clear on when charpy toughness is required for girder stiffeners. The question was raised whether charpy toughness testing is required for stiffeners that connect end diaphragms under expansion joints. Because the stiffeners are part of the system that transfers load from the floor beam to the longitudinal girder, charpy toughness testing is required. To help clarify the issue, the following note should be added to steel bridge plans that have end diaphragms under expansion joints.

In addition to the requirements of 4152 of the Standard Specifications, Charpy V-notch requirements shall also apply to the stiffeners connecting the floor beam diaphragms to the girders at all expansion joint locations.